## **REMARKS**

The Examiner reasserts an obviousness rejection as summarized below.

I. Claims 1-3 are rejected under 35 USC § 103(a) as allegedly unpatentable over *United States Patent Application Publication No. 2002/0147196* To Quessy et al., in view of Zakrzewska et al. *J. Neurol Neurosurg Psychiat* 52:472-476 (1989).

### I. Claims 1-3 Are Not Obvious Under Quessy & Zakrzewska

The Examiner remains unpersuaded that the Applicants have provided sufficient and necessary evidence to show that Quessy et al. teach an equivalence between lamotrigine and oxcarbazepine. The Examiner states that the evidence submitted by "The Suffin Declaration" is unpersuasive because:

... the data ... do not relate to the treatment of neuropathy ...

Final Office Action, pg 3. The Applicants point out that the pending claims are <u>not</u> method of treatment claims, but a composition claims. Consequently, intended use is not a relevant factor. Nevertheless, the Examiner is mistaken. The Applicants' rEEG data is relevant to neuropathy. For example, the Applicants specification provides:

Specifically, neurological disorders are contemplated as including, but not limited to, alzheimer's, epilepsy, parkinson's, huntington's, dyslexia, <u>migraine</u>, <u>pain</u>, <u>neuropathy</u>, stroke, or <u>facial nerve lesions</u>.

Applicants' Specification, pg. 21 ln 1-3 [emphasis added]. The Examiner has apparently misunderstood the Applicants' submitted data showing that lamotrigine (Lamictal) and oxcarbazepine (Trileptal) have opposite effects on various rEEG multivariables, thereby clearly showing that the two drugs are not necessarily interchangeable. Consequently, in view of the Applicants' submitted data, the Examiner's interpretation that lamotrigine and oxcarbazapine always have equivalent

therapeutic effects just because Quessy et al. teaches that they are both sodium channel inhibitors is not supported.

Nonetheless, the Applicants now provide concrete evidence showing that some patients' rEEG multivariables respond oppositely when given a lamotrigine/bupropion (Welbutrin) combination or an oxcarbazepine/bupropion combination. As seen in "The Second Suffin Declaration" two sets of rEEG variables were shown to respond in opposite directions when comparing the effects of the two drug combinations. See, Paragraphs 6 & 7. It is unmistakable that when comparing the responses for each set of rEEG variables, a lamotrigine/bupropion combination had the opposite effect of an oxcarbazepine/bupropion combination.

These data clearly rebut the teachings within Quessey et al. suggesting that oxcarbazepine and lamotrigine may be routinely substituted with an expectation of success. As such, the Applicants claimed embodiment is not obvious.

The Applicants respectfully request that the Examiner withdraw this rejection.

#### CONCLUSION

The Applicants believe that the arguments and claim amendments set forth above traverse the Examiner's rejections and, therefore, request that all grounds for rejection be withdrawn for the reasons set above. Should the Examiner believe that a telephone interview would aid in the prosecution of this application, the Applicants encourage the Examiner to call the undersigned collect at 617.984.0616.

Dated: October 31, 2007

Thomas C. Howerton Registration No. 48,650

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#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Suffin et al.

Serial No.: 10/697,497

Art Unit:

1617

Filed:

10/30/2003 Examiner: K

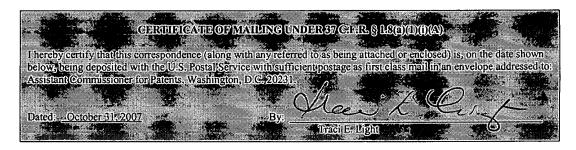
Kim, J.

Entitled:

Compositions and Methods for Treatment of Nervous System Disorders

# SECOND DECLARATION OF DR. STEPHEN SUFFIN UNDER 37 CFR § 1.132

Mail Stop –Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450



## Examiner Joyce:

- I, Stephen Suffin, M.D. under penalty of perjury, state that:
- 1. I am one inventor of the embodiments of the invention as claimed in the United States patent application captioned above.
- 2. I am qualified as an expert in the field of psychiatry and electrophysiological functioning of the brain.
- 3. I understand that, in the Final Office Action dated August 16, 2007 the Examiner still believes that oxcarbazepine can be routinely substituted for lamotrigine because both drugs are classified as sodium channel blockers as suggested in Quessy et al., United States Patent Application Publication No. 2002/0147196.

- 4. The Examiner has apparently not fully understood the impact of the data presented in my first declaration. These rEEG multivariate values were collected after a patient had been given either oxcarbazepine or lamotrigine and demonstrated that the respective effects of these drugs were either opposite and/or quite different in magnitude. The rEEG multivariables listed in the accompanying figures were, in fact, related to treatment effects for neuropathy (unlike the Examiner's stated conclusion).
- 5. I have also collected rEEG multivariate values for various drug combinations. One drug combination tested was lamotrigine/buproprion and the other drug combination tested was oxcarbazepine/bupropion. Quessy et al. is referred to by the Examiner as suggesting that these two drug combinations would be expected to act in a similar manner just because lamotrigine and oxcarbazepine are both classified sodium channel inhibitors. My data provides evidence that such a conclusion is unwarranted without empirical experimentation.
- 6. The rEEG multivariate scores for RPMZAT and RPMZPT were raised in value when patients were given oxcarbazepine/bupropion but the rEEG multivariate scores for FQMZAA and FQMZPA were lowered in value.

Welbutrir	n/Oxcarba	zepine				OF THE PROPERTY OF THE PROPERT				
**************************************	Case 1	Case 2	Case 3	***************************************						Average
RPMZAT	209	9.9	0.7							11.2
RPMZPT	720,5	1077	<u> 51,6</u>							16.2
FQMZAA	-6.7	-15.8	-5.2		<b></b>					-9.2
FQMZPA	-8.2	-078	-0.0	·····	<b>-</b>	<b>\$</b>	<u> </u>	•	<b></b>	-12.1

7. The rEEG multivariate scores for RPMZAT and RPMZPT were lowered in value when patients were given lamotrigine/bupropion but the rEEG multivariate scores for FQMZAA and FQMZPA were raised in value.

Welbutrir	n/Lamicta	l							
	Case 1	Case 2	Case 3		*				Average
RPMZAT	-7.1	1022	-5.6	······			<u> </u>		-0.9
RPMZPT	-6.6	20	0.7						-1.1
FQMZAA	0.6	6.9	7.3	······································	<b>_</b>			 	3.6
FQMZPA	mo	(8.9)	2.0			<b>†</b>		 	7.8

- 8. When comparing the above data in Paragraphs 6 and 7, it is clear that drug effects are not always predictable and may not act similarly just because they may have one mechanism of action in common. Many drugs have multiple mechanisms of action, of which some, none, or all may be affected depending on cell and/or tissue type.
- 9. To believe that all drugs with a similar mechanism of action always are equally effective for all medical conditions is contrary to common clinical practice. Indeed, it is known that giving the same drug to different people for the same diagnosed condition often have opposite effects. For example, the Food & Drug Administration has issued a warning that antidepressants may cause young patients to become more depressed or suicidal:

## Antidepressant Use in Children, Adolescents, and Adults

The U.S. Food and Drug Administration (FDA) today proposed that makers of all antidepressant medications update the existing black box warning on their products' labeling to include warnings about increased risks of suicidal thinking and behavior, known as suicidality, in young adults ages 18 to 24 during initial treatment (generally the first one to two months).

fda.gov/cder/drug/antidepressants/default.htm. My rEEG multivariates allows a clinician to predict how a patient will respond to a drug and/or drug combination before the treatment begins.

10. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Dated: October 31, 2007

Dr. Stephen Suffin

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